

**REMARKS**

Claims 1, 3-7, 9-11, 14-18, 20-24, 26, 28-30, 32-36, 38, 40-46 and 48-68 are pending. By this Amendment, claims 1, 10, 18, 26, 30, 38 and 45 are amended, claims 2, 19, 31 and 47 are cancelled, and claims 54-68 are added. The claims are amended to even more clearly distinguish over the applied references. No new matter is added by the above amendments.

**I. Information Disclosure Statement**

The Examiner is requested to consider the reference (U.S. Patent No. 5,781,277) submitted with the attached Information Disclosure Statement.

**II. All Pending Claims are Patentable**

Applicant notes with appreciation the identification of allowable subject matter in claims 16, 17, 29, 41, 47 and 53. The features of claim 47 have been incorporated into independent claim 45. Accordingly, independent claim 45 and its dependent claims 46, 48-53 and 55 are patentable. Applicant respectfully submits that all pending claims are in condition for allowance for at least the reasons set forth below.

Claims 1-7, 9-11, 14, 15, 18-24, 26, 28, 30-36, 38, 40, 45, 46 and 48-52 stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,359,688 to Akimoto et al. in view of U.S. Patent No. 6,036,162 to Hayashi and U.S. Patent No. 6,008,885 to Takahashi et al. This rejection is moot with respect to cancelled claims 2, 19 and 31, and with respect to independent claim 45 and its dependent claims for the reasons set forth above. This rejection is respectfully traversed with respect to the remaining claims.

Independent claims 1, 18 and 35 have been amended to recite that the actuator has a pair of piezoelectric elements coupled to the holder, and that the piezoelectric elements actuate the holder in a two dimensional plane perpendicular to an axis of the projection system. Applicant respectfully submits that the combination of references relied upon in the

Office Action does not disclose or suggest the combination of features recited in independent claims 1, 18 and 30 including, inter alia, the above-described actuator.

The Office Action relies upon the actuators 34M, 34R and 34L of Akimoto et al. as piezoelectric devices (citing col. 12, lines 13-16 of Akimoto et al.). However, the above-noted actuators of Akimoto et al. drive a wafer holder in a Z-direction (i.e., parallel to the projection system optical axis), rather than actuating a projection system holder in a two dimensional plane perpendicular to the axis of the projection system. Moreover, none of the applied references discloses or suggests the combinations of features recited in independent claims 1, 18 and 30 in which, inter alia, a pair of piezoelectric elements are coupled to a projection system holder and actuate that holder in a two dimensional plane perpendicular to an axis of the projection system. Accordingly, independent claims 1, 18 and 30, as well as their dependent claims, are patentable over the references applied in the Office Action.

Withdrawal of the rejection is requested.

The combinations of features recited in newly-added independent claims 56 and 64 also are not disclosed or suggested by the applied references. For example, the references do not disclose or suggest the combination of features recited in independent claim 56 including, inter alia, a plate coupled to the flange of a projection system, a pair of piezoelectric elements coupled to the plate, and a driver connected to the pair of piezoelectric elements to suppress a vibration of the projection system. The references also do not disclose or suggest the combination of features recited in independent claim 64, including, inter alia, a pair of piezoelectric elements coupled to the support member that supports a projection system, the pair of piezoelectric elements being actuatable in a two dimensional plane perpendicular to an axis of the projection system, and a driver connected to the pair of piezoelectric elements to actuate the pair of piezoelectric elements to suppress a vibration of the projection system.

Accordingly, claims 56 and 64, as well as their dependent claims, are patentable over the applied references.


Claims 42-44 stand rejected under 35 U.S.C. §103(a) over Akimoto et al. in view of Hayashi and Takahashi, and further in view of U.S. Patent No. 5,959,427 to Watson. These claims are patentable for at least all of the reasons set forth above with respect to their corresponding independent claims 1, 18 and 30.

### **III. Conclusion**

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



Mario A. Costantino  
Registration No. 33,565

MAC/ccs

**Attachments:**

Request for Continued Examination  
Petition for Extension of Time  
Amendment Transmittal  
Information Disclosure Statement

Date: April 28, 2004

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

<p><b>DEPOSIT ACCOUNT USE AUTHORIZATION</b> Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
---